

REMARKS

Claims 1-18 are all the claims pending in the application. Claims 1-14 have been examined as claims 15 and 16 are withdrawn from consideration and claims 17 and 18 are hereby added by this Amendment.

Claim Rejections - 35 U.S.C. § 103(a) - Claims 1-14

The Examiner rejected claims 1-14 under §103 as being unpatentable over Popovich in view of Yasuda. Applicant traverses this rejection as follows.

The Examiner alleges the Popovich discloses most of the features of independent claim 1. For example, the Examiner alleges that Popovich discloses a display apparatus for selectively displaying a two-dimensional image and a three dimensional image. Furthermore, the Examiner alleges that Popovich discloses a switching panel (holographic optical element 420; “HOE”; FIG. 20), disposed in front of the flat panel display. However, the Examiner concedes that Popovich fails to disclose a flat panel display device wherein a plurality of viewpoint images having parallax are generated when a 3D image is displayed. (Office Action, page 3)

To compensate for the above noted deficiency of Popovich, the Examiner applies Yasuda, alleging that it discloses a 3D image display device wherein a plurality of viewpoint images having parallax are generated when a 3D image is displayed. (*citing* page 3, lines 3-6).

As a motivation to combine, the Examiner provides that it would have been obvious to one of ordinary skill in the art to have a flat panel display device with a plurality of viewpoint images having parallax to be generated when a 3D image display is requested since one would be

motivated to provide a method of easily realizing 3D display of an image by electronically and variably controlling the appearance and disappearance of parallax. (Office Action, page 3).

In response, Applicant submits that the Examiner has failed to establish *prima facie* obviousness because the motivation or suggestion to combine the references is unsupportable. In particular, because the proposed modification would render Popovich unsatisfactory for its intended purpose, there is no motivation or suggestion to make the proposed modification. MPEP §2143.01 (V.) (*citing* In re Gordon, 733 F.2d 900 (Fed. Cir. 1984)).

First, the holographic optical system 320 of Popovich behaves similar to optical elements including lenses having various focal lengths. (col. 19, lines 45-55). By switching these focal lengths, several cross sections displayed on display unit 305 are imaged onto an “image volume” 330 comprised of several image planes 331-334. Furthermore, to accomplish both 2D and 3D imaging, the holographic optical elements can be switched between a diffracting state (3D) and a substantially transparent state (2D). (col. 20, lines 22-27).

On the other hand, Yasuda teaches that a parallax barrier (for blocking light) is to be displayed on the whole screen 28 while in the 3D mode. (pp. 4, lines 24-25; *see* FIG. 7A). In particular, Yasuda teaches that the parallax barrier is a vertical stripe shaped barrier. (pp. 4, lines 31-32) Moreover, the barrier must have a contrast ratio between the barrier and the open portion of at least 6:1. When the contrast ratio is less than 6:1, crosstalk occurs and the image on panel 46 cannot be stereoscopically seen. (pp. 4, lines 31-35) Thus, the presence of the parallax barrier and its particular configuration is essential for viewing of the 3D image generated by the display panel 46.

Therefore, because the switching panel of Popovich provides for diffracting light rays to several image planes 331-334, and not blocking the light rays as required by Yasuda, combining Popovich with the parallax display of Yasuda renders the 3D viewing of Popovich unworkable and, thus, unsatisfactory for its intended purpose. In other words, without having the parallax barrier present, Popovich would not display a 3D image.

Thus, Applicant submits that independent claim 1 is allowable for at least this reason. Furthermore, Applicant submits that claims 2-14 are allowable, at least because of their dependency.

New Claims

New dependent claims 17 and 18 are added by this Amendment and allowable, at least because of their dependency from claims 1 and 8.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
U.S. Appl. No. 10/719,019

Atty. Dkt. No. Q78117

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. P. Emery', written over a horizontal line.

David P. Emery
Registration No. 55,154

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

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